

**SEMICONDUCTOR MANUFACTURING APPARATUS**

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**PURPOSE:** To enable the measurement of foreign matters generated near the surface of wafers without interrupting the processing of wafers by a method wherein signals are caused to pass through the atmosphere near the wafer surface and changes in the signals are evaluated after the passage.

**CONSTITUTION:** Plural real wafers including a monitor wafer 1 are simultaneously processed. During the process, testing signals 4 are caused to pass through the atmosphere 2 near the surface of the monitor wafer 1. The signals 4 are converted into signals 4a or 5 during the passage. The signals 4a and 5 are examined by an examining means over the generation of foreign matters. When the number of signals 5 is beyond the allowable limit, a judgment is passed that there exist abnormalities. The judgment results in an alarm, which alarm interrupts the monitoring work. A process follows wherein such remedies are undertaken as the replacement of deteriorated parts. The number of signals 5 falling within the allowable limit results in a judgment that there exist no abnormalities, the judgment terminating the monitoring work. In this way, the wafer processing is interrupted only upon the generation of foreign matters beyond tolerance, which improves the throughput

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